

VI. *A Contribution to the Life-history of Micropteryx (Eriocephala) ammanella*, Hb. By THOMAS ALGERNON CHAPMAN, M.D., F.Z.S.

[Read February 15th, 1899.]

I FOUND specimens of a *Micropteryx*, that has been named *Micropteryx ammanella*, Hb., by Lord Walsingham, per Mr. Tutt, in early April in both 1897 and 1898, flying in several spots in the Esterels at a height of about 500 feet. They flew about and settled on the leaves of various trees—hollies, evergreen oaks, and especially cork-oaks. Their object in doing so was apparently feeding, but on what I could not detect. The oak catkins were not fully open, and a brown fungus on the underside of the leaves did not seem likely pabulum. Those I placed on flowers in captivity did not seem to understand them at all, still less deal with them in the business-like way of *M. calthella*. One consequence was, that the moths did not increase in bulk in captivity, or live many days. Assuming that the moths do feed like *M. calthella*, *M. seppella*, *M. aureatella*, &c., I am for the present quite in the dark as to what their food is. On the steep slopes of the Esterels, where *M. ammanella* flew, the ground is usually very arid, but I generally found not far off a damper shady place, with a good deal of coarse moss growing. Unless it fed on this moss, or something else, in these damper spots, it is difficult to understand how it could exist at all, as even these were very dry and parched in comparison with any other *Micropteryx (Eriocephala)* habitat I know of.

I placed about a score of moths in different vessels with portions of moss brought from the Esterels and some flowers. As far as I could see, the flowers were absolutely neglected, and the moths died early, and I thought at first I had got no eggs. I think, in fact, only some three or four moths did lay; they laid freely enough, but hid their eggs amongst the moss. They were probably mature and ready to lay when captured; I did not see any moths pairing in my jars, an occurrence of great frequency with

M. calthella. The eggs were laid deep in amongst the wet moss, in two instances quite out of sight till the moss was separated, and, in another, on the bottom of the jar beneath the moss. They were laid in batches of about thirty in three instances, and in one of between forty and fifty eggs. They are laid rather closely but irregularly together, with a tendency for the long axes of the eggs to be parallel, this obtaining throughout the whole of one group; in others the space available seems to have necessitated movement of the moths, thus frustrating this design.

Unlike the eggs of *Micropteryx (Eriocphala)* I have previously examined, these eggs are not spherical, as those of *M. calthella*, *M. aurcatella*, and *M. scppella* are, absolutely or approximately, but distinctly ovoid. The long axis being about $\frac{1}{50}$ th inch (.47 mm.), the transverse about $\frac{3}{8}$ th of the length (.32 mm.); both ends appear to be alike, so that the longitudinal section would be an ellipse, and any transverse section a circle. They are nearly white, translucent, and opalescent, with the same snow-like coating as in the other species. This consists of upright rods with swollen ends, tolerably close together, of varying thicknesses, and of a length equal to about one-fourth of the diameter of the egg, but occasionally equal to nearly half the diameter. This snowy coating is formed of a very flimsy transparent evanescent material, that perishes on very slight interference.

The moths were placed in confinement on April 8th; eggs were found on April 12th, and they did not hatch till early in May.

The young larvæ did not eat any of the moss that they were amongst, so that I doubt its being their proper food. They are rather smaller than those of *M. aurcatella*, but I could detect no difference between them and those of the other species examined. The suranal setæ are well marked. The jaws have four large teeth and a slight notch.